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## GEOGRAPHIC INTELLIGENCE REPORT

### PARAGUAY

### PART II: THE CENTRAL REGION



CIA/RR GR L-60-3, Part II

September 1960

# CENTRAL INTELLIGENCE AGENCY

## OFFICE OF RESEARCH AND REPORTS

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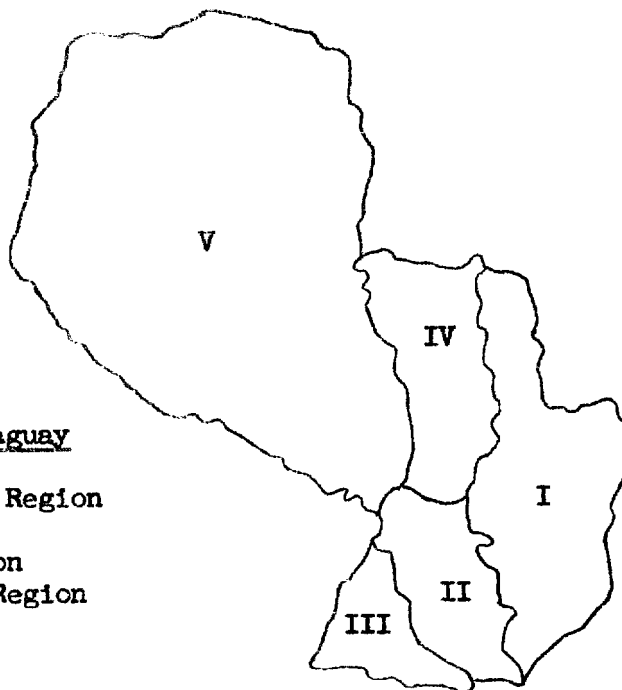
PARAGUAY

PART II: THE CENTRAL REGION\*

I. General Orientation

The Central Region, roughly 80 miles wide from east to west, extends southeastward from Asunción, on the Paraguay River, to Encarnación, on the Alto Paraná River, a distance of approximately 165 miles. This predominantly hilly region has a surface area of 31,831 square kilometers (12,287 square miles). The Central Region includes the capital district of Asunción and all of the Departamento de Cordillera,\*\* as well as parts of seven other departamentos: Central, Paraguairí, Guairá, Misiones, Itapúa, Caazapá, and Caaguazú. (See sketch below and map annex.)\*\*\*

- Regions of Paraguay
- I. Eastern Upland Region
  - II. Central Region
  - III. Southwest Region
  - IV. North Central Region
  - V. Chaco Region



\* The information in Part II of this report on Paraguay is based on the best sources available to this Office as of 1 August 1960.

\*\* The departamento is the first-order civil administrative division of Paraguay.

\*\*\* The map annex is Part VI of this report.

## II. Physical Environment

### A. Terrain

Although Paraguayans are wont to use such terms as Los Altos, montaña, and cordillera in describing the relief of the Central Region, actually it is a region of low hills and undulating-to-flat plains. The greatest number of hills are in the northern third of the region, but they cannot be described as high. The middle third has fewer hills and, instead of being formed in continuous cordilleras, or chains, as they are in the north, separate masses of hills are aligned along an axis. In the southern third of the region the isolated hillocks are lower than the hills of the north, and the distinguishable lines of hills peter out altogether. This southern part of the Central Region is primarily the flood plain of the Alto Paraná River.

The hills of the Central Region, whether chains, interrupted chains, or isolated hillocks, all trend in the same general direction, northwest-southeast, and form parts of four separate ranges. The most southwesterly range begins with the hills within the city of Asunción (25°16'S-57°40'W), includes the hills of Acahay (25°55'S-57°09'W) and Caapucú (26°13'S-57°12'W), and terminates in the hills of San Miguel (26°05'S-56°28'W) in the Departamento de Misiones. The second range starts just east of Asunción, continues through Yaguarón (25°36'S-57°18'W) and Paraguarí (26°00'S-57°10'W), and ends in Ybytymí (25°46'S-56°47'W) west of Villarrica (25°45'S-56°26'W). From the neighborhood of Arroyos y Esteros (25°04'S-57°06'W) the third range forms the watershed between the Manduvirá (24°59'S-57°12'W) and Piribebuy (26°51'S-55°14'W) Rivers, running through Itacuribí (25°29'S-56°51'W) and Valenzuela (25°37'S-56°51'W) and ending near

San José (25°33'S-56°45'W). A fourth line of hills, outliers of the Eastern Uplands rather than an isolated range, starts south of Villarrica and continues southward toward Encarnación (27°20'S-55°54'W).

Between the ranges of hills are flat or undulating plains of varying widths. With the exception of rivers, arroyos, and areas subject to flooding during the rainy season, the region presents no obstacles to cross-country movement.

#### B. Soils

In general the soils in the northern and northeastern parts of the Central Region are well drained, whereas those in the south are only moderately well drained. Although the soils in the south become waterlogged and fairly muddy in the rainy season, at no time can they be described as truly marshy. At times during the wet season they tend to be impassible, but during the rest of the year they can be crossed with ease. In the north is an area of true marsh, and in the north and along the Alto Paraná River are extensive areas that are flooded periodically and, as a result, are impassible.

#### C. Flora and Fauna

##### 1. Vegetation

Three types of vegetation are characteristic of the region: wood and forest; savanna; and the open grassland of the almost treeless plains. The woods and forests, though much less dense than the selvas or tropical rain forest to the east, offer good concealment and are fairly easy to penetrate. The savannas, which usually occur between the woods and the open grasslands, are dotted with fairly widely spaced palms or clumps of palms and deciduous trees.



Approximately a third of the Central Region is wooded or forested, with the thickest and least penetrable stands forming a north-south belt along the eastern boundary of the region. Elsewhere, forests occur as strips along the banks of the many streams, along the crest and on the sides of the chains of hills, and as small patches or woodlots surrounded by grazing lands or cultivated fields. Forests decrease in both extent and density from the northeast to the southwest.

For the most part the forests are made up of branching trees, broad-leaved evergreen and deciduous, not palms. These trees shed their old leaves as new ones form throughout the year instead of seasonally and therefore the forests provide good concealment from one end of the year to the other. In the unforested parts of the region concealment possibilities vary from fair to nonexistent.

## 2. Animal Life

The Central Region abounds in wildlife, much of which makes good eating. At the same time, along with the rest of Paraguay, the region has its share of animals that should be avoided or guarded against.

### a. Birds

The perdiz, \*ynambu (partridge) is found throughout the region in the short grass of pastures or areas that have been farmed. The martineta, \*ynambu-guazú (pheasant) is not as widely distributed as the perdiz and is most likely to be flushed in foot-high grass in the southern part of the region. The charta (wild turkey) roosts in the

\* In giving the names of local fauna and flora Spanish names are underlined, Guaraní names are starred and underlined, and rough equivalents in English follow in parentheses.

forests along the eastern boundary of the region and feeds in the adjacent fields. Ducks -- the pato paloma, about 4 inches long; the bragado (Muscovy duck), which reaches a weight of 16 pounds; and the \*ipei-suivivi -- are confined to the northernmost and southernmost parts of the region where there are open stands of water. Palomas (wild pigeons) are common and occur in three varieties -- \*picuipe, small; \*yeruti, medium; and \*picazie, large.

Although their flesh does not compare with that of the birds discussed above, the \*ñandú-guazú (rhea or South American ostrich), herons, and storks are edible and not uncommon.

#### b. Reptiles

Although plentiful in other parts of Paraguay, the cayman, \*yacaré (alligator) and the tortuga, \*carumbé (turtle) are uncommon in this part of the country. Their meat is highly recommended but they are rather difficult to catch. They can be caught or trapped alive, however, thus obviating the need for firearms. More frequently encountered than the alligator or the turtle are the land tortoise and the \*teyú-guazú (lizard), which grows to a length of 3 feet.

Snakes, including a number of poisonous varieties, are common and anti-snakebite serum (inyecciones antiofídicas) should be kept at hand. The most dangerous of the poisonous snakes are the cascabel, \*mboi chini (rattlesnake), the \*yarará, and the \*kyryryó. In wooded areas near the rivers, especially the Alto Paraná, it is possible to find anacondas, \*mboi yagua-curí-yú, that may be 30 feet long. If firearms are not used it will take 3 or 4 men with lassos to subjugate this beast.

c. Mamals

Two kinds of pigs that roam the wooded areas of the region make good eating. They are the \*cure-caaguy (wild pig) and the pécari, \*tayi catí or \*tai tatú (peccary). The latter has tusks and is a dangerous fighter. Another pig-like animal that is actually a large guinea pig is the carpincho, \*capiiba (capybara), the largest rodent in the world. Its flesh is not as good as that of either of the true pigs, but a small guinea pig that is famous for its flesh, the paca, \*acuti pac (spotted cavy; restless cavy), is plentiful in the region.

A number of species of armadillos ranging from the small \*tatú bolita to the giant \*tatú carreta, which has very flavorful meat, are generally found in the same environment as the pigs. They can be pulled out of their burrows by the tail and then killed with a club.

Other animals that may be encountered in the region are the tapir, \*mborebí, whose meat is said to be good but greasy; the puma (panther); the tigre, \*jaguarete (jaguar); the gato onza (snow leopard?); the gato montes (wild cat); the vagus rundi (a small lynx); anteaters, \*nurumí; as well as foxes, wolves, and beavers.

d. Fish

Paraguayan rivers abound in fish of many kinds but probably the best fishing in the Central Region is in the south -- in the Alto Paraná and the Tebicuary Rivers. The fish that are considered to be excellent eating are the dorado, the corbina, \*manguruyú (a catfish), the \*surubí (another catfish), the sabaló (shad; alewife), \*pacú, and anguilas (eels). Fish to be avoided are the raya, \*yabevúí (ray; skate), the piraña, \*pirai (piranha, caribe) and the palometa, \*pirá yaguá (round pompano).

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 Although the Paraguayan piranhas are said to be less voracious than

their Amazonian cousins, it is recommended that river swimming and bathing be confined to stretches where there is an appreciable current. The palometas are equally aggressive and they have reportedly castrated swimmers.

e. Insects

In addition to the many species of flies, ants, spiders, termites and ticks, some of which have toxic bites, the \*mbaragui (tiny black flying midges) are a constant menace. They attack all exposed parts of the body and the bites can develop into running sores.

D. Climate

By Paraguayan standards, climatologic data for the Central Region are readily available. Reporting stations are located at Asunción, Villarrica, San Juan Bautista (26°38'S-57°10'W), and Encarnación. Although Villarrica is the most typical station in the region, the data presented below are from Asunción records because they are more complete and detailed -- and, presumably, more valid.

Table

Characteristics of Climate  
 at Asunción, Paraguay  
 1940-50

Month	Day Length (Hours)	Temperature (Degrees Fahrenheit)		Rainfall (Inches)	Evaporation (Inches)	Relative Humidity (Percent)
		Average Max	Average Min			
Jan	13.5	93	73	6.0	4.7	62
Feb	13.0	91	73	4.2	3.6	66
Mar	12.3	88	70	7.2	3.2	71
Apr	11.5	82	66	5.1	2.6	71
May	11.0	77	64	4.4	2.2	74
Jun	10.6	73	59	3.6	1.9	76
Jul	10.8	73	57	2.5	2.5	70
Aug	11.1	77	61	1.1	3.6	62
Sep	11.9	81	63	2.9	3.6	62
Oct	12.6	84	64	4.2	3.7	64
Nov	13.3	88	68	5.4	3.9	63
Dec	13.6	93	72	3.7	4.9	58

Writers from other climes have called the climate of Paraguay "pleasant", "ideal", and even "paradisiacal"; but whether summer temperatures higher than 100°F and occasional cloudbursts of more than 4 inches contribute to a pleasant climate is a matter of taste. The climate of Asunción resembles that of Cape Canaveral, Florida, and that of Encarnación is similar to the climate of Fort Lauderdale, Florida. The chief difference between the climates of central Florida and the Central Region of Paraguay is that the extremes of temperature and the chances of a sudden downpour are much greater in the Central Region.

Summer (December through February) daytime temperatures of 38°C (100°F) or higher are common. Although winter temperatures below 0°C (32°F) normally are rare and of short duration, Encarnación had freezing weather in one or more months of every year of an eleven-year reporting period (1940-50) and also of a more recent three-year reporting period (1957-59). On the average, however, the summers are hot and the winters (June through August) warm. Asunción has 10 hot months, when mean average temperatures are 20°C (68°F) and above, and 2 warm months, with mean average temperatures between 10° and 20°C (50° and 68°F). Encarnación, some 150 miles north of Asunción, has only 7 hot months and 5 warm ones.

Rainfall is plentiful throughout the region. Asunción has an average annual precipitation of 1,274 millimeters (50 inches) (as compared to 41 inches in Washington, D.C.) and Encarnación has 1,740 millimeters (68 inches). Rainfall increases from west to east and from north to south; thus Asunción, in the northwest corner, is the driest spot in the Central Region.

Although rain falls throughout the year and no month has less than an inch, definite wet and dry seasons are distinguishable. Generally, January, February, and March tend to be the rainier months, and July, August, and September, the drier ones. In the northern part of the region the dry season is actually dry, but the 307 millimeters (12 inches) of rain that falls at Encarnación between July and September would be considered abundant or even excessive for a dry season in the American Middle West. Rain may fall in gentle drizzles that last several days or in violent tropical downpours during which some 125 millimeters (5 inches) will fall in 24 hours. Encarnación has received 232 millimeters (9 inches) of rainfall in a twenty-four-hour period. These violent downpours, which often result in floods, are not confined to the rainy season but may occur at any time except the July through September period.

Winds are predominantly from those points of the compass between northeast and south with the rainbearing ones from the northeast-southeast quadrant. In Asunción 11 percent of the days are calm, 75 percent have winds between 1 and 12 miles per hour, and in the remainder the winds vary from 13 to 38 miles per hour. Destructive tornadoes occasionally occur in the southern part of the region.

#### E. Water Supply

The lakes and streams, except the smaller arroyos, contain water all through the year although the water level may be very low between July and September. Because of the lack of sanitation in the region, water taken from all streams -- even those in spate -- should be purified.

### III. Population

#### A. Distribution

The population of the Central Region is 964,456\* persons, or 68 percent of the total population of Paraguay. The average density is 30 inhabitants per square kilometer (78 per square mile), by far the densest in the country. This average is misleading, however, because actual densities vary from more than 1,000 per square kilometer (2,590 per square mile) in the area around Asunción to fewer than 3 persons per square kilometer (7.8 per square mile) in some areas in the south. Three of the largest urban areas of Paraguay -- Asunción (population, 206,634), Villarrica (14,680), and Encarnación (13,321) -- are located in the Central Region. In general, the area between Asunción and Villarrica averages well above 30 persons per square kilometer (78 per square mile) whereas that part of the region between Paraguarí and Villarrica, on the one hand, and the Alto Paraná River, on the other, averages between 10 and 25 persons per square kilometer (26 and 65 per square mile).

Outside the cities the areas of densest population are in the hillier, better-drained parts of the region. One such area of relatively dense population forms a hilly, north-bending arc that starts just east of Asunción, includes the Departamento de Cordillera, and ends at Villarrica. Two other areas, converging in the south at Encarnación, follow northward-trending stretches of higher land -- one along the national highway, Route I, to Paraguarí and the other along the Paraguayan Central Railroad, near the border of the Eastern Upland Region.

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\* All figures are from the 1950 census.

### B. Ethnic Groups

Only some 25,000 foreigners, one-fourth of 1 percent of the total regional population live in the Central Region. Except in Asunción, where they form 4 percent of the population, and in the Departamento de Itapúa, where they form 11 percent, the foreigners are widely scattered throughout the region. The rest of the people in the region are mainly native Paraguayans of the Spanish-Guaraní Indian stock. There are very few pure white persons or pure Indians. Among the foreigners the Argentines form the largest ethnic group, accounting for 40 percent of all foreigners in the region; members of the second largest group, are all called, simply, "Europeans." Fewer than a hundred Mennonites live in the Central Region, in contrast to the many of the Chaco.

In a nation that prides itself on being bilingual the Central Region is culturally atypical. Fifty-one percent of its inhabitants speak Guaraní only. Guaraní-only speakers are concentrated in the Departamento de Cordillera and along the eastern borders of the region. They are a distinct minority in the Asunción and Encarnación areas, where they form only 10 percent and 25 percent, respectively, of the total areal population.

### C. Health and Sanitation

Although Paraguayans are fond of quoting a statement made by a Spanish traveler in 1797 that "Paraguay is the most healthful country in the world," the quotation should be taken with a grain of sulfa. A more recent American source states that general sanitation and sanitary conditions are exceedingly poor. The cleansing rains that alternate with dry hot sunny days, however, make the general health picture far better



than might be expected. In fact, the death rate in Paraguay is lower than in other Latin American countries and only slightly higher than in the United States. With proper sanitary measures, perhaps Paraguay could become one of the most healthful countries in the world.

In the Central Region the principal causes of death, in descending order, are pneumonia, tuberculosis, diarrhea and enteritis, syphilis, dysentery, malaria, hookworm, and typhoid fever. The most prevalent diseases are listed below. With proper hygienic and prophylactic measures, all of them can be avoided easily.

Ancylostomiasis (hookworm) is probably the most prevalent and vicious disease in the region. Eighty to ninety percent of the local inhabitants are infected with hookworm or with ascariasis (roundworm) or teniasis (tapeworm).

Syphilis and other venereal diseases, included among the principal causes of death, are of high incidence; and infection is widespread throughout the region.

Tuberculosis, another of the principal killers, has a high incidence in Asunción, in the larger towns nearby, in Caazapa, and in Coronel Oviedo.

Malaria is endemic in the region and epidemic every 3 or 4 years, but the strain is benign and the death rate low. In rural areas mosquito netting and atabrine are necessary deterrents.

Typhoid and paratyphoid, caused primarily by contaminated water, are endemic in the region. The highest incidence of these diseases occurs during the hot summer months.

Bacillary dysentery and amoebic dysentery occur throughout the region. They also are caused mainly by contaminated water.

Leprosy is not prevalent throughout the region but does occur among the poorest classes in Asunción, Encarnación, Caacupé, Paraguairí, and Yegros, as well as Sapucay, the site of a leprosarium.

Brucellosis (Malta fever) does occur in the region but usually can be avoided by boiling milk before using.

Leishmaniasis (kala azar or black disease; Oriental sore), Chagas disease, and trachoma have occurred but rarely in the region.

#### IV. Civil Government and Military Centers

Apart from the national capital of Asunción (population, 201,340), the leading civil government centers are the capitals of the departamentos:

<u>Center (1950 population)</u>	<u>Departamento</u>
Villarrica (14,680)	Guairá
Encarnación (13,321)	Itapúa
Coronel Oviedo (5,804)	Caaguazú
Paraguairí (4,658)	Paraguairí
San Juan Bautista (4,602)	Misiones
Caacupé (3,739)	Cordilleras
Caazapa (3,003)	Caazapa
Villeta (2,526)	Central

In addition to its status as a center of departamento government, each of these cities, is likely to be the site of some form of court, a branch of one of the national banks, the regional hospital, secondary schools and colleges, a police station, and the tax office. The 78 distrito capitals, which range in size from Luque (25°16'S-57°34'W; 6,867 inhabitants) to Moisés S. Bertoni (26°22'S-56°26'W; 121 inhabitants), also have certain governmental functions.

Outside of Asunción, where most of the military establishment is located, are an artillery garrison and an artillery regiment at Paraguarí, the headquarters of the 2d Military Region; an infantry battalion and an engineering battalion at Villarrica; and an infantry regiment and an independent infantry battalion at San Juan Bautista, the headquarters of the 3d Military Region.

V. Transportation

A. Roads

The main roads in Paraguay are designated as rutas (routes). Of the 5 or 6 routes in the country, 2 lie wholly within the Central Region (one of them is only 22 miles long) and another 2 lie partially within the region. Many tracks that the Paraguayan government chooses to call roads also traverse the region. The total mileage of routes and tracks in the Central Region amounts to one-third of the country's total road mileage. If the new Chaco road, most of which is still on the drawing board, is subtracted from the national total, then more than half of the "improved" roads in the country are in the region. The impressiveness of this figure is somewhat diluted, however, by the fact that 31 percent of the mileage of the region is made up of dirt roads and another 15 percent of graveled roads with no base. For instance, Route I -- the 220-mile road from Asunción to Encarnación, which is the main road of the country as well as the region -- is 36 percent dirt road, 30 percent gravel on a base, 28 percent gravel without a base, and only the remaining 6 percent is asphalt surfaced. The Brazil Road (Route II, Asunción east to the Alto Paraná River) is somewhat better. Twenty-three percent of its surface is asphalt

(the paved stretch lies entirely in the region) although it includes a stretch of dirt road that amounts to 36 percent of the total length.

All of the populated places shown on the population map (see map annex, Part VI) are on some sort of road or trail that connects them to the nearest Route or railroad. Much of the year the connecting roads as well as many stretches of the Routes are impassable because of frequent and drenching rains.

#### B. Railroads

The Central Railway of Paraguay (FCCP) lies wholly within the Central Region except for a branch that extends eastward into the Eastern Upland Region. It is standard gauge and, without the branch, is 236 miles long; it also is decrepit, antiquated, and bankrupt. Nevertheless, the Central Railway has been an important factor in the economy of the country and will be again if it can improve the roadbed and replace its worn-out equipment, including the wood-burning locomotives.

The railroad runs from Asunción to Encarnación via Luque, Paraguari, and Villarrica and thus serves 5 of the 9 most populated places in the country. Its prime function is the distribution of goods from Asunción, the principal importing port of Paraguay, to the rest of the region. Delivering raw materials and food to Asunción is a secondary function. In 1958 the FCCP carried 1,069,823 passengers for a passenger mileage of 21,309,551 and 236,301 tons of freight for a ton mileage of 16,249,841. Until that far-off, halcyon day when the region develops a usable roadnet, the FCCP, bankrupt or no, will continue to be the transportation backbone of the region.

C. Waterways

Although 95 percent of the products that enter and leave Paraguay are transported via rivers, waterways do not play an important part in the economy of the Central Region. The country's two main avenues of transit are the Paraguay and the Alto Paraná Rivers; both are peripheral to the region and bound it for short distances only. On these river stretches are located three of the largest ports of Paraguay (the only ones in the region) -- Asunción, Encarnación, and Villeta (25°28'S-57°36'W) -- but the movement from other parts of the region to these ports and vice-versa is by road and railroad, with very minor exceptions.

The Manduvirá and Piribebuy Rivers in the north and the Tebicuary River (26°36'S-58°16'W) in the south, all left bank tributaries of the Paraguay River, are navigable for barges and small boats some distance upstream but they carry very little produce in comparison to the roads and railroad.

D. Air

Air transport is of little consequence in the region. The international airport, Presidente Stroessner (9,000-foot runway), and the military airfield, Campo Grande (3,600-foot runway), are located outside Asunción. The only other improved airport, with a runway of 3,450 feet, is at Encarnación. Landing strips are reported at San Juan Bautista, Paraguari, and Arroyos y Esteros.

At one time, regular -- though not frequent -- services were provided by Linea Aerea de Transporte Nacional (L.A.T.N.) but today only chartered flights are in operation. The above fields are also used by the military transport service, Transportes Aereos Militares (T.A.M.).

VI. Telecommunications

Ninety percent of the telephone lines in Paraguay, all government-owned, are within the Central Region. These lines in no sense constitute a system or net but are merely a trunkline from Asunción to Encarnación via Paraguairí and Villarrica -- following the right-of-way of the Central Railway -- with some score of branch lines connecting the trunkline with nearby villages.

If the telegraph lines of the FCCP are lumped with those of the government, the region may be said to have a telegraphic network. Asunción is connected to Encarnación via two separate trunklines: the national line via Villeta, Paraguairí, and San Juan Bautista, which roughly follows the national road (Route I); and the FCCP line via Ypacaraí (25°23'S-57°16'W), Paraguairí, and Villarrica, which parallels the railroad. Asunción also is the terminus of two other main lines that are not associated with the net; one goes to Bahía Negra (20°15'S-58°12'W), in the northern part of Paraguay, and the other runs south to Pilar (26°52'S-58°23'W). Most villages of the region have telegraphic connections with Asunción.

The region has 9 medium wave and 6 shortwave broadcasting stations, most of them in Asunción. One of the shortwave stations, ZPA-1, currently is inactive. Locations of the stations are as follows (the two-letter call number indicates a medium wave station, the three-letter number with final "A", a shortwave station; frequencies in kilocycles are given in parentheses):

Asunción -- ZP-1 (920), ZP-3 (1,430), ZP-7 (730),  
ZP-9 (970), ZP-10 (1,300), and ZP-11  
(1,200); ZPA-1, inactive (5,972), ZPA-3  
(11,850), ZPA-7 (15,200), and ZPA-10  
(6,015).

Encarnación -- ZP-5 (900) and ZPA-5 (5,985).

Villarrica -- ZP-6 (1,360) and ZPA-6 (9,735).

San Lorenzo (near Asunción -- ZP-13 (1,570).

Four radiotelegraph stations, located at Asunción, Villarrica, San Juan Bautista and Encarnación, handle governmental military and nonmilitary traffic; and the only radiotelephone station, in Asunción, takes care of most of Paraguay's telecommunications with the outside world.

#### VII. Economic Activity

The principal economic activities in their probable order of importance are agriculture, livestock ranching, manufacturing, and lumbering. The Central Region leads the country in agricultural production and also in manufacturing, most of which is concentrated in and around Asunción.

Most of the agricultural land is in the northern part of the Departamento de Central, the southern and eastern parts of the Departamento de Cordillera, along the railroad between Paraguari and Villarrica, and in the area north of Encarnación. Commercial crops, in order of importance, are sugarcane, cotton, and tobacco. The sugarcane usually is more or less refined locally, whereas the cotton is sent to Pilar and Asunción for processing and the tobacco to Asunción where it is made into cigarettes (for men) and cigars (for women). The principal subsistence crops of the region are mandioca (manioc, cassava), which is far and away the most important, and corn, sweet potatoes, rice, peanuts, and onions, listed in order of production.

The typical farm is a small plot about three-quarters of which is planted to subsistence crops, a small portion of which are marketed. The rest of the farmland is in tobacco or cotton. The yards and fields are lined with fruit trees -- mainly mango, avocado, papaya, and banana -- and with cocoteros (cocos palm), which is similar to a palmetto, not a coconut. Each farm has a few chickens and pigs.

Livestock ranching is best developed in the south. The southern parts of the Departamentos de Paraguari and Misiones, and the western parts of the Departamentos de Itapúa and Caazapá are predominantly grazing lands. Cattle are raised exclusively and the beef is consumed in Asunción, Villarrica, and Encarnación. The hides are sold in Asunción and processed there.

Although most of the manufacturing is concentrated in Asunción, the food-processing and wood-working industries have a wider distribution. The sugar refineries and associated distilleries, rice-processing and yerba maté plants, soap factories, and bakeries are scattered throughout the region, but the only brewery, the match factory, and the tobacco factories, textile mills, glass works, and tanneries are concentrated in the capital. The wood-working plants generally are located in the larger towns along the railroad, close to the centers of lumber production.

Mining is of little significance. A little salt is mined at Iambaré (25°21'S-57°39'W) near Asunción, and a few limestone outcrops are worked elsewhere, all on a small scale. Deposits of iron, copper, and other minerals are well known but quantities are not sufficient for commercial exploitation.



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